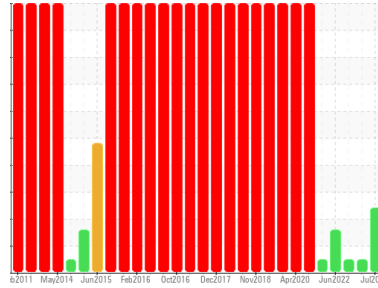


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / MUSKOGEE SAND
Machine Id
WL042
Component
Front Right Final Drive
Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)

Sample Rating Trend



WEAR



DIAGNOSIS

▲ Recommendation

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: PM-4 changed fluid)

▲ Wear

Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0084512	PCA0087106	PCA0070532
Sample Date	Client Info	11 Jul 2023	23 May 2023	29 Dec 2022
Machine Age	hrs	32072	31670	31010
Oil Age	hrs	32072	1720	1060
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		ABNORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >800	466	139	105
Chromium	ppm	ASTM D5185m >10	2	<1	<1
Nickel	ppm	ASTM D5185m >5	2	<1	0
Titanium	ppm	ASTM D5185m >15	2	1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >75	34	19	2
Lead	ppm	ASTM D5185m >10	▲ 10	2	<1
Copper	ppm	ASTM D5185m >75	▲ 106	18	4
Tin	ppm	ASTM D5185m >8	▲ 6	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	<1	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	2	2	1
Manganese	ppm	ASTM D5185m	5	1	<1
Magnesium	ppm	ASTM D5185m	25	19	16
Calcium	ppm	ASTM D5185m	2604	2620	2649
Phosphorus	ppm	ASTM D5185m	959	962	949
Zinc	ppm	ASTM D5185m	1160	1149	1152
Sulfur	ppm	ASTM D5185m	4532	4252	4174

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >400	210	94	26
Sodium	ppm	ASTM D5185m	2	0	0
Potassium	ppm	ASTM D5185m >20	12	7	2

VISUAL

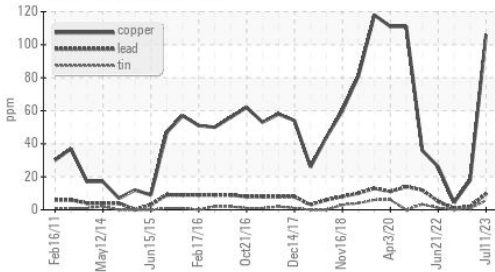
method	limit/base	current	history1	history2	
White Metal	scalar	*Visual NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	NORML	NORML
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

FLUID PROPERTIES

method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445 195	207	211	220

OIL ANALYSIS REPORT

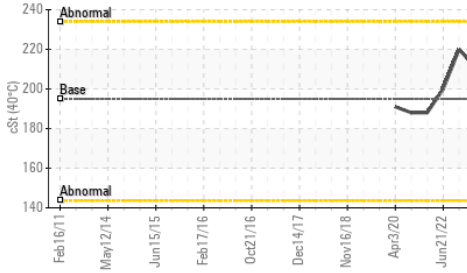
▲ Non-ferrous Metals



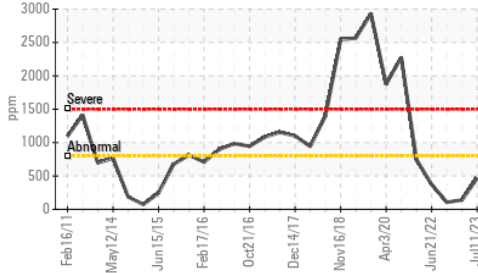
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS

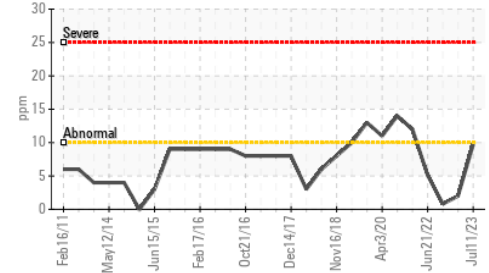
Viscosity @ 40°C



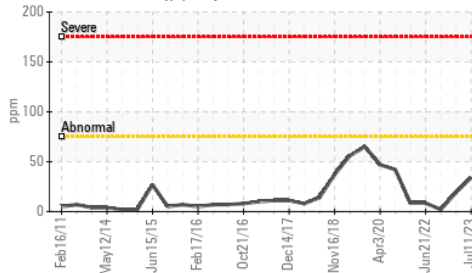
Iron (ppm)



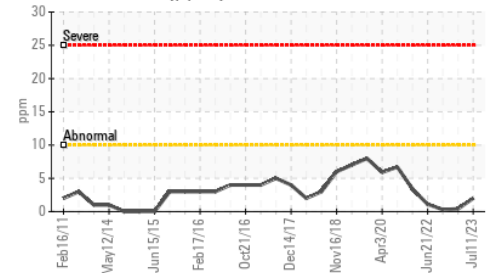
▲ Lead (ppm)



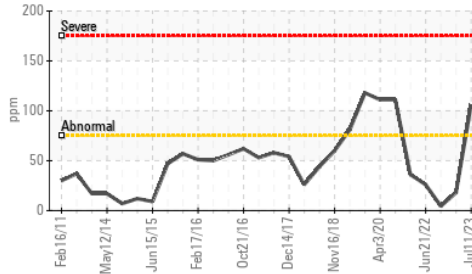
Aluminum (ppm)



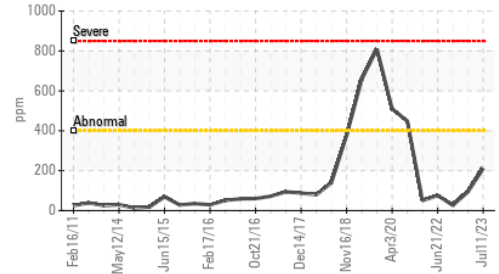
Chromium (ppm)



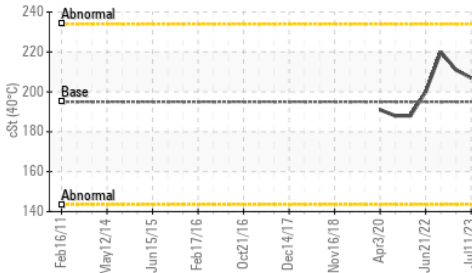
▲ Copper (ppm)



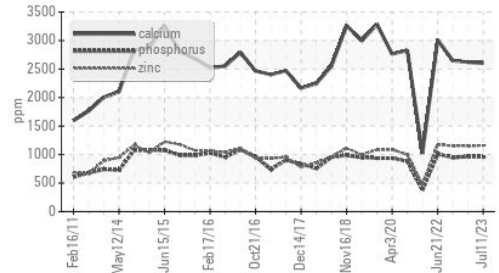
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0084512 **Received** : 17 Jul 2023
Lab Number : 05900808 **Diagnosed** : 19 Jul 2023
Unique Number : 10562164 **Diagnostician** : Sean Felton
Test Package : MOB 1

Kemp Quarries - Muskogee Sand
 3395 W 50th St N
 Porter, OK
 US 74454

Contact: MUSCOGEE NOTIFICATIONS
 muskogee@muskogeessand.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: